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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,546	11/27/2001	Masahiro Ozaki	AND-015-USAP	8416

7590 06/10/2004
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EXAMINER
DICUS, TAMRA

ART UNIT	PAPER NUMBER
1774	

DATE MAILED: 06/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,546

Applicant(s)

OZAKI, MASAHIRO

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

All rejections are withdrawn. Applicant's arguments, with respect to the rejection(s) of claim(s) 1-6 have been fully considered and are persuasive because Kazuo does not teach a toner image on a fiber layer as applicant asserted. '396 is overcome because Applicant argued hot-printing is not equivalent to electrophotography. However, upon further consideration, a new ground(s) of rejection is made set forth below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2840918 to Yugen et al. (English translation) in view of JP3-106396 to Hayashi et al. (English translation) and further in view of USPN 5869167 to Takeuchi et al.

Yugen teaches a transfer sheet. Yugen provides a similar structure of instant claims 1-6 (see Yugen patented claims 1-3 and Figures 1-4), but does not include a hair-transplanted sheet or a fiber layer. Hayashi teaches a thermal transfer sheet including short fiber layer made by electrostatic flocking (embraces electrophotography) of short fibers such as nylon (page 5, lines 1-5). Hayashi employs such short fibers to form a flocked pattern at page 3, /5-/6. While Hayashi does not refer to the transferred fiber and paper sheet as a hair-transplanted sheet, the teachings of Hayashi produce a functional equivalent. Hayashi and Yugen are analogous art

because both references are in the same field of endeavor, such as the recording media technology.

It would have been obvious to one of ordinary skill in the art to modify the transfer sheet of Yugen to include the hair-transplanted sheet and fiber layer of Hayashi in order to form a flocked pattern (furry/velvety) as Hayashi describes at page 3, /5-/6. The modification results in improved image or design with no distortion or dislocation.

While Yugen provides a parting agent, Yugen does not teach it is an acrylic solvent parting agent. While Hayashi employs an adhesive property to the short fiber layer by employing solution type, emulsion type, or dispersion type inks of acrylic at page 4, /8-/9, Hayashi does not expressly define the resin ink as an acrylic ester. Takeuchi teaches an electrophotographic decal transfer providing base material 11 of paper or coated paper having an adhesion layer 12 including acrylic resin soluble in organic solvents (equivalent to an acrylic solvent cohesive layer).

3. It would have been obvious to one of ordinary skill in the art to modify the combination of Yugen and Hayashi to include an acrylic solvent and ester because Takeuchi provides an adhesion layer 12 comprised of an acrylic resin soluble in organic solvents for releasing properties (col. 3, lines 17-27 of Takeuchi).

4. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2840918 to Yugen et al. (English translation) in view of JP3-106396 to Hayashi et al. (English translation) and further in view of USPN 5869167 to Takeuchi et al. and further in view of USPN 6,037,090 to Tanaka et al.

Yugen, Hayashi and Takeuchi are relied upon above. Yugun teaches a transparent acrylic urethane layer (8), but does not teach a transparent acrylic ester layer as instant claims 2 and 6 requires. Tanaka teaches a toner for electrophotography and preparation. Tanaka explains known binder resins that include acrylic ester resins, polyurethane used in combination (col. 5, lines 25-46) for fixing properties. Tanaka explains acrylic ester is preferred because of the advantage of obtaining color developability among fixing strength and chargeability properties (col. 5, lines 49-50). Yugun and Tanaka are analogous art because both references are involved in the same field of endeavor, namely the recording media technology.

It would have been obvious to one of ordinary skill in the art to substitute the urethane of the transparent acrylic urethane layer of Yugun with the acrylic ester of Tanaka because Tanaka teaches acrylic ester resins and urethanes are known binder resins that are conventionally used in combination or singly for fixing and color developability (col. 5, lines 25-50 of Tanaka).

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. Yugun is still used to teach the similar layered structure. Hayashi is now provided to teach hair-transplanted sheet with a fiber layer. Takeuchi is now provided to teach an electrophotographic decal using acrylic solvent as a parting agent. Tanaka is used to teach the benefits of using acrylic ester.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- USPN 5,370,960 to Cahill et al. teaches an electrographic transfer medium with toner image (18) and adhesive layer (26). The adhesive layer (26) serves to protect the toner

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image layer (18) and includes adhesive material comprised of acrylic copolymers or urethanes.

- USPN 5,849,447 to Matsuda teaches a recording paper and discloses fiber layers 31 on paper and fiber layers 51 and 52 surrounding paper on each side.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 4, 2004

[tld]

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